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10/586,850

07/20/2006

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EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

05/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/586,850 | Applicant(s) KIMURA ET AL. | |
| | Examiner ANGELA J. MARTIN | Art Unit 1795 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the Amendment filed on February 2, 2009. The Applicant has amended claim 1. However, a new rejection is presented for the following reasons of record.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al., U.S. Pat. Application 2003/0082427 A1, in view of Goodman, U.S. Pat. Application Pub. 2004/0173615.

Rejection of claims drawn to a fuel cartridge.

Prasad et al., teach a fuel cartridge for a fuel cell, that is stored with liquid fuel to be supplied to a fuel electrode in the fuel cell and that is attachable and detachable to/from said fuel cell, is characterized in that the fuel cartridge comprises: a fuel storage chamber whose an inner surface is made of resin that is resistant to said liquid fuel; a case that contains said fuel storage chamber internally and that is made of impact-resistant resin; and a fuel supply part that is connected to said fuel storage chamber and that supplies said liquid fuel to said fuel cell (0021-0034; Fig. 2). The fuel cartridge

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for the fuel cell according to claim 1 is characterized in that said inner surface of said fuel storage chamber is made of alcohol-resistant resin (0021-0034). The fuel cartridge for the fuel cell according to claim 1 or 2 is characterized in that said fuel storage chamber is made of a bag-shaped member that is made of a flexible resin material (0021-0034). The fuel cartridge for the fuel cell according to claim 1 or 2 is characterized in that said fuel storage chamber and said case are jointly integrated (Fig. 2). The fuel cartridge for the fuel cell according to claim 1 or 2 is characterized in that the fuel cartridge comprises a pressure adjustment member for adjusting an inner pressure of said fuel storage chamber (0021-0034). The fuel cartridge for the fuel cell according to claim 7 is characterized in that said pressure adjustment member includes a gas-liquid separation film (0021-0034). The fuel cartridge for the fuel cell according to claim 1 or 2 is characterized in that the fuel cartridge comprises a vent that passes through said case (0021-0034). A fuel cell is characterized in that the fuel cell comprises a fuel cell main body having a fuel electrode and a fuel cartridge for the fuel cell according to claim 1 or 2, which is stored with liquid fuel to be directly supplied to said fuel electrode (abstract). Claim 10 seeks to protect a fuel cell, said fuel cell comprising the fuel cartridge according to any one of claims 1-9. Because claims 1-9 do not possess novelty or inventiveness, furthermore, Document 1 also discloses the following technical features (see paragraph [0020], and Fig. 1 of the specification of Document 1): fuel cell 12 comprises a fuel cell main body having a fuel electrode and a fuel supply 20 which is stored with liquid fuel to be directly supplied to the fuel electrode.

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Prasad et al., do not teach the specific impact resistant resin.

Goodman teaches poly(vinyl chloride), high density poly(ethylene), polycarbonate, poly(ethylene terephthalate), poly(propylene), polyurethane, suitable copolymers thereof and mixtures thereof (0017).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to insert the teachings of Goodman into the teachings of Prasad et al., because Goodman teaches that: "Suitable polymers for rigid outer container 101 include, for example, poly(vinyl chloride), high density poly(ethylene), polycarbonate, poly(ethylene terephthalate), poly(propylene), polyurethane, suitable copolymers thereof and mixtures thereof. The choice of specific outer container material can generally be determined by desired characteristics of a particular application."

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al., U.S. Pat. Application 2003/0082427 A1, in view of Goodman, U.S. Pat.

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Application Pub. 2004/017361, and in further view of Yonetsu et al., U.S. Pat. No. 6,506,513 B1.

3. Prasad et al., teach a fuel cartridge as described above.
4. Goodman teaches a fuel cartridge as described above.

Yonetsu et al., discloses a liquid fuel-housing tank for fuel cell, and specifically discloses the following technical features (see lines 1-16, column 6, and Fig. 3): the fuel tank is provided with hole 6, and a selectively permeable membrane is mounted to the hole 6; said membrane has a low permeability of the liquid fuel and relatively high permeability of a gas, thereby it can adjust the inner pressure of the fuel storage chamber (corresponding to the pressure adjustment member in claim 7 of the present application). It can be seen that the additional technical feature of claim 7 has been disclosed, and said feature plays the same role as in the present application, that is, for adjusting an inner pressure of the fuel storage chamber. Namely, it provides the technical inspiration of applying the above-mentioned feature to Prasad et al. to further solve the technical problem thereof. Therefore, when claims cited by claim 7 do not possess novelty or inventiveness, claim 7 does not possess inventiveness. Claim 8 further defines claim 7. However, Yonetsu et al. discloses the following technical feature (see lines 1-16, column 6, and Fig. 3 of the specification of Yonetsu et al.): the membrane has a low permeability of the liquid fuel and a high permeability of a gas, thereby it corresponds to the gas-liquid separation film in claim 8 of the present application. It

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can be seen that the additional technical feature of claim 8 has been disclosed in Yonetsu et al.

Response to Arguments

5. Applicant's arguments with respect to above claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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AJM
/Angela J. Martin/
Examiner, Art Unit 1795